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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,789	12/20/2000	Takuya Watanabe	NEC2010-US	3842
21254	7590	03/10/2004	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			AWAD, AMR A	
			ART UNIT	PAPER NUMBER
			2675	12

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,789

Applicant(s)

WATANABE, TAKUYA

Examiner

Amr Awad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-9 and 16 is/are allowed.
- 6) ☒ Claim(s) 1,10-15, 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 18 recites, "detecting the accumulated intensity...". There is a lack of antecedent basis of this limitation, which renders the claim indefinite because the examiner is not clear how the accumulated intensity is accumulated. Examiner suggests that a limitation describing accumulating the intensity signals should be added, similar to the other independent claims. The Examiner requires a correction or clarification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1, 10, 14 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu et al. (US patent NO. 6,466,186; hereinafter referred to as Shimizu).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

By comparing the independent claims of the present invention to the independent claims of Pat-186, we can see substantial similarities between them. For example, the charge recovery timing control of the present application is similar to a variable means of Pat-186. Shimizu teaches a charge recovery timing control for controlling the length of a charge recovery period from a time at which a charge recovery operation of the charge recovery circuit starts to a time of fixing to a sustaining potential or ground potential based on the comparison (figure 7 where it shows the recovery timing varies) (col. 7, lines 6-25).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9-10, 11-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awamoto et al. (US Patent NO. 6,452,590; hereinafter referred to as Awamoto) in view of Minamibayashi (US patent NO. 5,943,030).

As to independent claim 1, Awamoto (figure 1) teaches a drive apparatus for a plasma display panel (col. 6, lines 59-64), and includes charge recovery circuit that re-uses a recovered electrical charge (for that, Awamoto teaches that the driving circuits 27 and 28 have a power recycling circuit for collecting and reusing the power that was used for charging a capacitor) (col. 7, lines 40-49). Awamoto teaches a intensity detection means for detecting intensity so as to obtain screen intensity information (for that, Awamoto teaches a data processing system (23) includes a memory having a gradation information (intensity information) to be supplied to the driving circuit 28) (col. 7, lines 23-37). Awamoto teaches a charge recovery timing control means for controlling the charge recovery period from a time which a charge recovery operation of the charge recovery starts to the time of fixing to a sustaining potential (for that, Awamoto teaches that the power recycling circuit 33a in figure 4 includes 2 inductors 51 and 52, the inductance values can be out of the range depending on the design giving a high priority to the charging and discharging time or the power recycling ratio) (col. 9, line 66 through col. 10, line 23). This is clearly showing that the time of recycling is varying and can be controlled.

Awamoto does not expressly teach that the recovery time control means controls the charge recovery period in response to the intensity information obtained by the intensity detection means.

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However, Minamibayashi (figure 3) teaches a plasma display panel and a power recovery circuit, wherein the timing of the recovery period is controlled (i.e., varies) based on the controlled means (col. 10, lines 13-21, and col. 12, lines 52-56).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Minamibayashi having a controlled timing period for charge recovery to be incorporated to Awamoto's device so as motivated by Minamibayashi, to be able to recover and reuse the electric charges applied during the data recover period, and since the data is variable, the timing of recovery has to variably controlled (col. 3, lines 62-67)..

As to claim 9, Awamoto show power supply (25), such supply usually indicates the amount of power to be consumed in certain time, which broadly reads on the limitations power consumption measuring means in claim 9.

As to independent claim 10, the method of claim 10 is corresponding to apparatus claim 1 and is analyzed as previously discussed with respect to apparatus claim 1.

As to claim 11, it is known that the intensity of a display is the intensity of each pixel in the display area (see Col. 7, lines 18-22).

As to claim 12, the claim is similar to claim 11 above, by considering that the pre-established pixels of claim 11 are each pixel in the effective display area of the plasma display.

As to claim 13, using the broadest reasonable interpretation of the claim, we can fairly see that in Awamoto's device, if the accumulating intensity is high, the time for recovery will be longer (col. 14, lines 1-9).

As to claims 14 and 18-19, the claims are a broader version of independent claims 1 and 10, and are analyzed as previous discussed with respect to claims 1 and 10.

As to claim 15, Awamoto teaches an accumulator for accumulating a intensity of each pixel (col. 7, lines 18-22).

As to claim 17, it is known that the intensity of a display is the intensity of each pixel in the display area (see Col. 7, lines 18-22).

As to claim 20, using the broadest reasonable interpretation of the claim, we can fairly see that in Awamoto's device, if the accumulating intensity is high, the time for recovery will be longer (col. 14, lines 1-9).

Allowable Subject Matter

6. Claims 2-8 and 16 allowed.

Response to Arguments

7. Applicant's arguments filed 12/16/2003 have been fully considered but they are not persuasive.

Applicant argued that Shimizu does not teach charging recovery timing control circuit. However, as described in the rejection above, Shimizu (figure 7) fairly reads on

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the claimed limitation. Shimizu also teaches that the timing (length) of the charge recovery periods varies based on the intensity (col. 9, line 66 through col. 10, line 17).

Applicant has amended the claim to replace the brightness detection with an accumulated comparator that compares the accumulated intensity signal to a prescribed value (claim 1 for example). Examiner believes that such limitation is similar to the brightness detection circuit previously claimed. As to Applicant's argument (page 16) that the present application has been amended to clarify that it is the length of the charge recovery period would make the claims read over the cited references. Examiner respectfully submits that the term "length of the charge recovery period" simply means the time period of the charge recovery. Examiner submits that the combination of Awamoto and Minamibayashi fairly reads on the claimed limitations. examiner also believes that the motivation clearly states that the teaching of the secondary reference is combinable with the main reference.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703) 308-8485. The examiner can normally be reached on Monday-Friday, between 9:00AM to 5:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras can be reached on (703) 305-9720. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

A handwritten signature in black ink, appearing to read "Amr Awad". The signature is stylized with a large, sweeping flourish at the end.

A.A.

March 5, 2004